

CLAIMS

1. A method for determining the position of a device (16) providing images (14) by means of X rays with respect to the reference frame ( $R_{ref}$ ) as an image of an object (10) is taken, characterized in that the position of the device (16) with respect to a reference frame ( $R_{ref}$ ) is determined based on the determination of the position with respect to the device (16) of a target (25), mechanically connected to the object, by means of the impression of the target on the image, and on the determination of the position of the target with respect to the reference frame ( $R_{ref}$ ).

2. The device of claim 1, in which the position of the target (25) with respect to the reference frame ( $R_{ref}$ ) is determined from the determination, by a localization system (20), of the position with respect to the reference frame ( $R_{ref}$ ) of a rigid localization body (21, 26) mechanically connected to the target.

3. The device of claim 2, in which the target (25) is fixed with respect to the rigid body (21, 26).

4. The device of claim 1, in which the configuration of the target (25) is determined by a feeler (74, 78) connected to a rigid localization body (76, 80) having its position with respect to the reference frame ( $R_{ref}$ ) determined by a localization system (20).

5. The device of claim 2, in which the target (25) is connected to the rigid body (21) by an articulated arm (30, 62).

6. The device of claim 1, in which the target (25) is removed from the object (10) between the acquisition of two images (14).

7. The device of claim 1, in which the determination of the position of the target (25) with respect to the device (16) is performed from the determination on the image (14) of characteristic impressions (42), each characteristic

impression corresponding to the projection on the image of a separate element (38, 54) of the target (25).

8. A target (25) for the device of any of claims 1 to 7 comprising elements (34A, 34B, 34C, 34D, 34E, 50A, 50B, 50C, 58A, 58B, 58C, 70A, 70B, 70C) transparent to X rays and elements (38, 54) opaque to X rays, characterized in that it comprises at least three supports (34A, 34B, 34C, 34D, 34E, 50A, 50B, 50C, 58A, 58B, 58C, 70A, 70B, 70C) transparent to X rays, each support containing balls (38, 54) opaque to X rays substantially aligned along a determined direction, the determined directions being non coplanar.

9. The target (25) of claim 8, in which at least two balls (38, 54) are of different diameters.

10. The target (25) of claim 8, comprising a hold means (32, 36, 44, 60, 66) capable of maintaining the cylinders (34A, 34B, 34C, 34D, 34E, 50A, 50B, 50C, 58A, 58B, 58C, 70A, 70B, 70C) according to a configuration from among several determined configurations.